



Comptroller General  
of the United States

Washington, D.C. 20548

## Decision

PR/AF

**Matter of:** Department of Defense Purchase of Fuel Cells  
**File:** B-246304.2; B-246304.3; B-246304.4;  
B-246304.5  
**Date:** July 31, 1992

### DIGEST

Under the so-called Berry Amendment provisions of the Department of Defense (DOD) Appropriations acts, DOD is prohibited from spending appropriated funds to purchase foreign-manufactured fuel cells where the fuel cells contain layers of synthetic fabric, an American product protected under the "Buy American" restriction of the Berry Amendment.

### DECISION

This decision is in response to inquiries from a number of congressmen concerning applicability of the so-called Berry Amendment provisions to purchases of fuel cells for installation in H-53 and H-3 helicopters. The Berry Amendment, which has been included in various forms in Department of Defense (DOD) appropriations acts every year since 1941, generally restricts DOD's expenditure of funds for certain articles and items to American goods. Synthetic fabric and coated synthetic fabric were added to the Berry Amendment's list of protected articles by the DOD Appropriations Act, 1968. The issue raised is whether these fuel cells, which contain synthetic fabric, are covered by the Berry Amendment and, therefore, its restrictions.

In our view, the Berry Amendment applies to DOD's purchases of the fuel cells.

The question of Berry Amendment applicability to fuel cells arose in May 1991 when the Air Force awarded a contract to Sekur S.p.A.-Pirelli Group (Sekur-Pirelli), an Italian company, for a number of crash resistant, self-sealing, fuel tank assemblies for use in H-53 helicopters.<sup>1</sup> Documents

<sup>1</sup>The record shows that total price of the Sekur-Pirelli contract for all line items including options was \$2,073,723; the total offered price from the only American firm that submitted a proposal was \$5,783,915.

8623, HILL No. 90-96  
§1 Stat 231,246  
(Sept. 29, 1967)

provided to our Office show that the Air Force had previously purchased H-3 fuel cells (non-self-sealing, non-crash resistant) from Sekur-Pirelli in 1989. In December 1991, the Navy announced that it would purchase a large number of H-3 helicopter fuel cells and that Sekur-Pirelli was the only approved source (request for proposals No. N00383-92-R-0142). Both Engineered Fabrics Corporation and American Fuel Cell and Coated Fabrics Company (Amfuel) filed protests with our Office against the Navy solicitation. Engineered Fabrics' protest was resolved on jurisdictional grounds and Amfuel withdrew its protest.

We met with representatives of both protesting firms and Sekur-Pirelli and allowed them to present written and oral arguments concerning applicability of the Berry Amendment. DOD was offered an opportunity to meet with us as well, but declined, choosing to stand on arguments it presented in a March 19 report to our Office.

The current version of the Berry Amendment is in section 8005 of the DOD Appropriations Act, 1992 (Pub. L. No. 102-172, Nov. 26, 1991), which states in pertinent part:

"No part of any appropriation contained in this Act, except for small purchases in amounts not exceeding \$25,000, shall be available for the procurement of any article or item of food, clothing, tents, tarpaulins, covers, cotton and any other natural fiber products, woven silk or woven silk blends, spun silk yarn for cartridge cloth, synthetic fabric or coated synthetic fabric, canvas products, or wool (whether in the form of fiber or yarn or contained in fabrics, materials, or manufactured articles), or any item of individual equipment manufactured from or containing such fibers, yarns, fabrics, or materials, or specialty metals including stainless steel flatware, or hand tools, not grown, reprocessed, reused, or produced in the United States or its possessions, except to the extent that the Secretary of the Department concerned shall determine that satisfactory quality and sufficient quantity of [such] articles or items . . . grown, reprocessed, reused, or produced in the United States or its possessions cannot be procured as and when needed at United States market prices . . . ."

Visual inspection of samples cut from the walls of Sekur-Pirelli's H-3 and H-53 fuel cells shows that each consists of alternating layers of synthetic fabric and nitrile (a rubber-type product). Sekur-Pirelli representatives

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explained that the fabric layers are nylon and that they are needed to reinforce the cell walls. A major difference between the H-3 and the H-53 cell wall is that the H-53 has many more alternating layers of fabric and nitrile; the extra layers of nylon are necessary because the H-53 cell is required to be crashworthy. We also note that the military specifications governing manufacture and testing of these fuel cells specifically refer to a "fabric inner layer ply."

DOD and Sekur-Pirelli argue that the fuel cells are not covered by the Berry Amendment provisions. DOD points out that it has long been DOD's policy that the Berry Amendment applies to manufactured items only if the items both (1) contain the protected article in a recognizable form and (2) contain the protected article in significant amounts. DOD contends that the synthetic fabric contained in Sekur-Pirelli's fuel cells is sandwiched between layers of nitrile, is not visible without cutting the cell wall, and, thus, is not a recognizable form of synthetic fabric. DOD also contends that the cost of the synthetic fabric represents less than 10 percent of the total price, and, therefore, there is not a significant amount of synthetic fabric in the fuel cell. Sekur-Pirelli adds that its fuel cells are nitrile or rubber-based products which only incidentally contain layers of synthetic fabric between the rubber layers for reinforcement purposes.

We are not persuaded by DOD's argument that the Berry Amendment is not applicable because the fuel cells do not contain synthetic fabric in a recognizable form. First, the Berry Amendment does not state that the synthetic fabric must be recognizable as such in order to be protected. Moreover, in our opinion, the fabric in the cell walls clearly is recognizable. This is especially so when the wall is cut so that a cross section can be seen. We note in this regard that the military specifications governing testing of the fuel cells specifically call for dissecting the cell walls for certain tests. The mere fact that the fabric layers are covered by nitrile and, therefore, are not easily seen does not transform the fabric into something that is not recognizable as synthetic fabric.

Nor are we persuaded by DOD's argument that the fuel cells do not contain significant amounts of synthetic fabric because the fabric cost represents less than 10 percent of the total price. The cost of an element of a manufactured product is only one indication of that element's significance. Here, DOD and Sekur-Pirelli both acknowledge that synthetic fabric can amount to almost 30 percent of the weight of H-53 fuel cell (less in the H-3 version). More importantly, the synthetic fabric is significant because it is necessary as a reinforcing layer in the cell walls, which

otherwise would not be rigid or crash resistant. The fuel cells themselves are basically nothing more than large containers, made up of alternating layers of synthetic fabric and nitrile, to which metal couplings are attached. Thus, we believe that synthetic fabric is a fundamental element found in significant amounts in the fuel cells.

Sekur-Pirelli argues, in the alternative, that even if the Berry Amendment provisions apply, purchase of Sekur-Pirelli fuel cells is proper because the synthetic fabric used in their construction is purchased from an American firm. We do not agree.

In National Graphics, Inc., 49 Comp. Gen. 606 (1970), we rejected a similar argument and upheld the agency's rejection of a bid for supplying cotton pads made of cotton grown in the United States but manufactured into pads in Japan on the basis that the Berry Amendment prohibited the purchase of cotton articles manufactured outside of the United States. We stated that the intent of Congress in enacting the Berry Amendment restriction was to consider an article "American" only where the raw fiber, "as well as each successive stage of manufacture," was of domestic origin. Similarly, we upheld the Defense Logistics Agency's rejection of a bid for supplying combat coats on the basis of the Berry Amendment restriction where the bid stated that labor amounting to just 12 percent of the total cost of production would be performed outside of the United States. See Penthouse Mfg. Co., Inc., B-217480, Apr. 30, 1985, 85-1 CPD ¶ 487. We reach the same result here.

The Berry Amendment prohibits the purchase of these cells even though they contain American-made synthetic fabric. The words "synthetic fabric or coated synthetic fabric" were added to the Berry Amendment in the DOD Appropriations Act, 1968, the legislative history provides insight into the rationale behind modifying the protective provision. According to Senate Report No. 494, 90th Cong., 1st Sess. 67 (1967):

"The committee recommends inclusion of the words 'synthetic fabric or coated synthetic fabric' in the appropriate places in section 623 of the bill. It was brought to the attention of the committee that substantial procurement by the Department of Defense has been made of articles of foreign manufacture utilizing these materials in competition with American manufacturers. The effect of the amendment would preclude such awards, except as provided under the provisions of section 623."

The 1988 version of the Berry Amendment extended protection to tents, tarpaulins, covers, canvas products and items of individual equipment manufactured from or containing fibers, yarns, fabrics or materials already protected under the Berry Amendment. According to House Report No. 410, ~~100th Cong., 1st Sess. 270 (1987)~~, the rationale for specifying the types of canvas products in the new version of the Berry Amendment was "to make sure these clothing-type items are not procured or assembled overseas." Further guidance on the reasoning behind the Berry Amendment is contained in House Conference Report No. 498, ~~100th Cong., 1st Sess. 665-6 (1987)~~ which states, in pertinent part:

"The purpose of this provision is clear; to maintain and support the defense industrial base for textiles, and to ensure that American military is not dependent on foreign sources of supply in the event that mobilization becomes necessary. Although the intent of this provision is clear, a narrow reading of the law would hold that procurement of foreign made textile products (other than clothing) is not prohibited if the products are manufactured from domestic cloth."

"Adding canvas products to the Buy American list ensures the preservation of the domestic industrial base for textile products by prohibiting the acquisition of these supplies from foreign sources. In particular this language prohibits the acquisition of foreign-made tents, tarpaulins, and covers, as well as individual equipment manufactured from or containing natural or synthetic fibers, yarns, fabrics, or materials. . . . Indeed, given that the purpose of the amendment is to protect the industrial base, it is our intention that the scope of the prohibition be read broadly." (Emphasis added.)

Our discussions with the parties revealed that manufacture of the fuel cell walls begins with a layer of woven nylon fabric. Sekur-Pirelli apparently buys nylon fabric from an American firm, but then coats the nylon fabric with nitrile --using a process known as calendaring--at its plant in Italy. The resulting material (consisting of alternating layers of nylon and nitrile) is further processed by bonding numerous layers of it to each other, vulcanizing the multi-layered material, and molding the material about a solid form. Clearly, the nylon fabric undergoes several manufacturing processes, including calendaring and vulcanizing, outside of the United States. Moreover, there is no dispute that, once the nylon and nitrile are calendared and several layers of this material are joined

together, the material undergoes several more manufacturing processes, including attaching couplings and sealing seams, before it is assembled into the finished fuel cell. All of these processes apparently take place outside of the United States. In view of the clear legislative intent that the scope of Berry Amendment's prohibition be read broadly, we find that the cells are items of individual equipment manufactured from or containing synthetic fibers within the Berry Amendment restriction.<sup>2</sup>

We have been advised that the Navy has not yet made award under request for proposals No. N00383-92-R-0142. In view of our conclusion that these fuel cells are protected under the Berry Amendment restriction, award to Sekur-Pirelli would result in violation of the ~~Antideficiency Act~~, 31 U.S.C. S. 1341, which prohibits officers or employees of the United States from obligating agency funds in direct contravention of a specific limitation contained in an appropriations act. See 60 Comp. Gen. 440 (1981).

*Milton J. Avolar*

Acting Comptroller General  
of the United States

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<sup>2</sup>This conclusion is consistent with the Senate Committee on Appropriations' statement regarding Berry Amendment applicability made in connection with its consideration of the DOD Appropriation Bill, 1992, as follows:

"The Committee notes that it has long been the intent of Congress that this provision covers not only fabrics and apparel themselves but also all stages of textile production and all types of textile products, including manufactured articles. The Committee further notes that synthetic fabric fuel containers for military aircraft are included within the coverage of this provision and directs the Secretary to instruct the relevant offices within the Department of Defense to take note of this and ensure that Department procurements are consistent with the requirements of this provision." S. Rep. No. 154, 102d Cong., 1st Sess. 368 (1992).